



FIELD NOTES

NTSB Accident Number:

WPR20LA315

Date & Location of Accident:

9/22/20
Emmett, ID

NTSB REQUESTED CONFIDENTIAL:

The information contained in this report is produced for the sole purpose of providing observations and information to the NTSB and/or FAA during an active accident investigation. No entity may release or share this information prior to its inclusion in the NTSB's public docket without the express written consent of Air Tractor, Inc.

PREPARED BY:

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Air Tractor, Inc.



Example of AT-802A

The information contained in this report is the result of traveling to the accident scene on 9/24/20 under the approval of NTSB IIC Eric Gutierrez and under the supervision of FAA Inspector Gregory Horrell. The wreckage examination was conducted at the accident scene. Also present during the on-scene investigation were Kirk Rothwell and Bobby Eisele with the Bureau of Land Management, John Waddell with the Department of the Interior, Patrick and Darrel Mertens of Aero S.E.A.T. Inc. and Kyle Schroeder and Dakota Lowe with Air Tractor Inc.

This report is subject to revision as additional information becomes available. The intent of this report is to provide details relating to the investigation of the subject accident. This report is not to be shared with any person outside the scope of this official investigation.

GENERAL OBSERVATIONS OF WRECKAGE AND ACCIDENT SITE:

Arrival at the accident site was approximately 9:00 am on 9/24/20. The aircraft wreckage was found approximately 5 miles southeast of Emmett ID. The airplane was found to have impacted terrain near the top of a ridge approximately 120 yards southwest of the location of the wreckage.

The wreckage was found in foothills containing small brush and grass. There were no trees or power lines in the vicinity of the wreckage. Evidence of a small grass fire was found near the main engine wreckage. No heat/fire damage was found on the airplane.

The airplane was confirmed to be N836MM, which is an Air Tractor AT-802A, serial number 802A-0836, manufactured in 2020. The Hobbs meter was destroyed so aircraft hours at the time of the accident could not be determined.

FUSELAGE:

The fuselage was found on its left side, relatively intact, with multiple separations found in fuselage frame tubes. The cockpit was found to have maintained occupiable space. The right seat rail was found bent and with a separation at the upper seat attach point. The right seat rail lower attach point was found separated from the frame. The aircraft was equipped with five-point inflatable restraints. The restraints were found buckled with the shoulder-harness

mounted airbags in the deployed state. The webbing of the right lap belt and the shoulder harness was found separated. The separations were neatly cut, consistent with first responder actions during the extrication effort.

The powerplant control levers were found in the following positions: Power Lever at or near full power, Propeller Lever in the feathered position, and the Condition Lever in the Flight Idle position. Due to the mechanical nature of these control systems, post-impact position does not always correlate to pre-impact position. In this accident, the propeller control linkages were found with significant firewall forward damage which likely caused impact-related movement of the Propeller Lever.

It was noted that the digital attitude indicator was powered on during the investigation, indicating that electrical power was still present in the aircraft electrical system. This electrical power was later removed from the electrical system by removing the battery ground cable from the one remaining intact battery.

LANDING GEAR:

The main landing gear was found 15 yards apart, 100 yards east of the initial impact and 85 yards south of the main wreckage. The left gear spring was found twisted aft.

The tail gear fork assembly was found separated from the housing assembly 65 yards south of the main wreckage.

WINGS:

The wings were found attached to the fuselage. The right wing was found with the outboard portion bent aft. Damage was found on the inboard trailing edge consistent with impact from the disconnected right main landing gear. The right aileron was found attached to the wing. The right flap was found 20 yards southeast of the initial impact.

The left wing was found bent aft with the leading edge against the ground and the top of the wing facing the belly of the fuselage. The left flap and aileron were found loosely attached to the wing.

The fuel tanks were found ruptured. Both fuel caps were found in place.

EMPENNAGE:

The empennage surfaces were present at the aft end of the fuselage except for the left elevator. The left elevator was found 60 yards east of the initial impact. The left horizontal stabilizer was found separated from the upper fuselage attach points, attached to the v-strut which remained attached to the fuselage attach point.

The right horizontal stabilizer and elevator were found attached to the aft fuselage. The vertical stabilizer and rudder were found attached to the aft fuselage.

FLIGHT CONTROLS:

All flight control surfaces were located along the wreckage debris path. The flight controls were damaged, but flight control continuity was established to the extent possible by the condition of the wreckage. All observed separations were consistent with overstress.

Elevator Controls

The elevator controls are manually operated by steel and aluminum pushrods connecting the control stick to the elevator control horns through two control idlers. The elevator controls were found to be continuous from the control stick to the elevator control horns.

Rudder Controls

The rudder controls are manually operated by a pair of stainless steel cables running directly from the rudder pedal assemblies to the rudder control horns. The rudder cables were found to be continuous from the rudder pedal attach points to the rudder control horn.

Aileron Controls

The aileron controls are manually operated by steel and aluminum pushrods connecting the control stick to the aileron control horns through multiple torque tubes, idlers and a bellcranks.

The left aileron controls were found to be continuous except for a D-shaped separation at the inboard end of the left aluminum pushrod. The condition of the aluminum pushrod outboard of the separation could not be determined due to the condition of the wreckage. The right aileron controls were found to be continuous to the inboard end of the aluminum pushrod. The condition of the right aileron controls outboard of the inboard end of the aluminum pushrod could not be determined due to the condition of the wreckage.

Flap System

The flap controls were found to be continuous. The right flap control horn was found separated from the flap, attached to the main wreckage. The flap actuator was found with an extension of 2 inches which corresponds to 17° of flaps.

POWERPLANT:

The powerplant was found with the main wreckage with a separation at the "A" flange. The reduction gearbox was found, 60 yards south-southwest of the main wreckage.

The engine was equipped with a five-bladed constant speed, fully reversable, Hartzell propeller. The propeller hub was found attached to the reduction gearbox. All five blades were accounted for in the wreckage. Four of the blades were found attached to the propeller hub. One of the blades was found 30 yards northwest of the propeller hub. The propeller blades were found with spanwise bending in different directions.

FIREGATE:

The airplane was found to have been equipped with a Trotter Controls Gen III Firegate. The controls were found with the armed switch in the "Off" position and the mode switch in the "Auto" position. The manual salvo dump button was found separated from the panel. The position of the salvo button could not be immediately determined due to the condition of the button. The Emergency Dump ("E-Dump") handle was found in the closed and locked position. The rear of the firegate was found separated from the airplane with the E-dump linkage in the closed position.

DATA RECORDING:

The airplane was equipped with an Electronics International MVP-50T engine monitoring system, P/N: MVP-50T-802-67F, S/N:191609 which was removed from the airplane and taken possession of by the FAA. During the removal of the system, the housing of the unit contacted the fuel boost pump switch and caused an electrical short. The display was found with retardant at the seam of the screen and the housing. While handling the unit, a liquid was found to exiting the unit between the housing and the back plate. Due to these reasons, the MVP-50T unit was not eligible for a field download of the data.

The Trotter Controls Gen III Firegate includes a DataVault system, P/N: 5025-0419, S/N: 124, that was removed and taken possession of by the FAA.

DISTURBANCE OF WRECKAGE:

Our disturbance of the wreckage was limited to handling components to the extent necessary for identification and documenting their condition, including removing inspection covers/access panels. We did not make any modification to the aircraft wreckage that would intentionally result in loss of evidence.

No portion of the wreckage was removed by Air Tractor personnel during our involvement in this accident investigation, except for removal of the MVP-50T engine monitor screen unit and the Gen III DataVault unit.